RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: ___10/613,377___
Source: ___OIPE___
Date Processed by STIC: ___7/28/2003___

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
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2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 4.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
> http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<u><http://www.uspto.gov/ebc/efs/downloads/documents.htm></u>, EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
   > Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/613,377

DATE: 07/28/2003
TIME: 12:57:10

Input Set : A:\Sequence Listing -Aphton-0059.txt
Output Set: N:\CRF4\07282003\J613377.raw

```
 3 <110> APPLICANT: Aphton Corporation
 5 <120> TITLE OF INVENTION: Liposomes for Vaccine
 7 <130> FILE REFERENCE: 1102865-0059
 9 <140> CURRENT APPLICATION NUMBER: US/10/613,377
 9 <141> CURRENT FILING DATE: 2003-07-03
 9 <160> NUMBER OF SEQ ID NOS: (14) 20 (see p. 2)
11 <170> SOFTWARE: PatentIn version 3.0
```

many error

Does Not Comply
Corrected Diskette Needed

ppl /-/ o

ERRORED SEQUENCES

```
268 <210> SEQ ID NO: 17
269 <211> LENGTH: (18) 16 Shown below
270 <212> TYPE: PRT
271 <213> ORGANISM: Artificial
273 <220> FEATURE:
274 <223> OTHER INFORMATION: Synthetic peptide of amino acid sequence 138-145 of human
chorionic
275       gonadotropin hormone linked to a spacer peptide and conjugated to
276       Diphtheria toxoid
278 <220> FEATURE:
279 <221> NAME/KEY: MOD_RES
280 <222> LOCATION: (1)..(1)
281 <223> OTHER INFORMATION: 5-oxoproline
283 <220> FEATURE:
284 <221> NAME/KEY: MOD_RES
285 <222> LOCATION: (16)..(16)
286 <223> OTHER INFORMATION: Cysteine is conjugated to Diphtheria toxoid
288 <400> SEQUENCE: 17
290 Xaa Ser Asp Thr Pro Ile Pro Gln Ser Pro Pro Pro Pro Pro Pro Cys
291 1               5                   10                  15
```

<210> 20 *last sequence in submitted file*
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide of amino acid sequence 138-145 of human chorionic
      gonadotropin hormone linked to a spacer peptide and conjugated to
      Diphtheria toxoid

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Cysteine is conjugated to Diphtheria toxoid

<400> 20
Cys Pro Pro Pro Pro Ser Ser Ser Asp Thr Pro Ile Leu Pro Gln
1   5   10   15

<210> 2
<211> 18
<212> PRT
<213> Homo sapiens
<220><221> MOD_RES
<222> (1)..(1)
<223> Pyroglutamic acid or 5-oxoproline

<400> 2

Xaa Gly Pro Trp Leu Glu Glu Glu Glu Glu Ala Tyr Gly Trp Met Asp Phe Gly
1   5   10   15

```
<210> 3
<211> 5
<212> PRT
<213> Artificial
```

(Artificial is circled) not explained in <220> - <223> section
(see p. 5 for error explanation)

```
<220>
<221> MOD_ RES
<222> (1)..(1)
<223> Pyroglutamic acid or 5-oxoproline

<400> 3

Xaa Gly Pro Trp Leu
1               5
```

Input Set : **A:\Sequence Listing -Aphton-0059.txt**
Output Set: **N:\CRF4\07282003\J613377.raw**

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,5,6,7,8,13,14,16,17,18,19,20

Use of <220> Feature(NEW RULES):
Sequence(s)__are missing the <220> Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial Sequence"
or"Unknown". Please explain source of genetic material in <220> to <223>
section (See "Federal Register," 6/01/98, Vol. 63, No. 104,pp.29631-32)
(Sec.1.823 of new Rules)

Seq#:4,   3,5,7,8
                ↓
              see p.4

<210> 9
<211> 6
<212> PRT
<213> Artificial, hypothetical

do not show this on <2137 line

show on <2237 line

same end appears in other

sequence

10/6/13 ⬤7 (1)

```
        <210> 16
        <211> 35
        <212> PRT
        <213> Artificial
sert →)<220>
        <300>
        <301> U.S. Patent 4,767,842
<223> <302> Anti-peptide antibodies specific for the human chorionic gonadotropin
        hormone C-terminal fragment (Structure II) corresponding to 111-145
        Sequence of the beta subunit.
insert <307>
        <310>
        <400> 16
```

move to <310> line

<301 represents
authors of
a journal
article

<210> 13
<211> 13
<212> PRT
<213> Artificial
<220>
<223> Synthetic peptide of amino acid sequence 1-6 of human gastrin 34 linked
      to a spacer peptide and conjugated to Diphtheria toxoid

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Pyroglutamic acid or 5-oxoproline

<220> (MOD_RES) *move down to <221> line*
<221>
<222> (13)..(13)
<223> Cysteine is conjugated to Diphtheria toxoid

VARIABLE LOCATION SUMMARY
PATENT APPLICATION: US/10/613,377

DATE: 07/28/2003
TIME: 12:57:11

Input Set : A:\Sequence Listing -Aphton-0059.txt
Output Set: N:\CRF4\07282003\J613377.raw

<u>Use of n's or Xaa's(NEW RULES):</u>
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
in <220> to <223> section, please explain location of n or Xaa, and which
residue n or Xaa represents.

Seq#:1; Xaa Pos. 1,17
Seq#:2; Xaa Pos. 1
Seq#:3; Xaa Pos. 1
Seq#:4; Xaa Pos. 1
Seq#:5; Xaa Pos. 1
Seq#:6; Xaa Pos. 1
Seq#:7; Xaa Pos. 1
Seq#:8; Xaa Pos. 1
Seq#:12; Xaa Pos. 1
Seq#:13; Xaa Pos. 1
Seq#:15; Xaa Pos. 1,10
Seq#:17; Xaa Pos. 1
Seq#:18; Xaa Pos. 1
Seq#:19; Xaa Pos. 17

Please follow the above

Please ensure all Xaa's are explained

see p 10

<210> 19
<211> 17
<212> PRT
<213> Artificial
<220>
<223> Synthetic peptide of GnRH amino acid sequence linked to a
spacer peptide and conjugated to Diphtheria toxoid

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Cysteine is conjugated to Diphtheria toxoid

<400> 19

Cys Pro Pro Pro Pro Ser Ser Glu His Trp Ser Tyr Gly Leu Arg Pro Xaa
1   5   10   15

needs explanation (see p. 9)

Input Set : **A:\Sequence Listing -Aphton-0059.txt**
Output Set: **N:\CRF4\07282003\J613377.raw**

```
L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:12 M:283 W: Missing Blank Line separator, <210> field identifier
L:29 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:36 M:283 W: Missing Blank Line separator, <220> field identifier
L:36 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:42 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:2
L:42 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:51 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:4, <213>
ORGANISM:Artificial
L:65 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:4, <213>
ORGANISM:Artificial
L:65 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:4,Line#:65
L:67 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:4
L:67 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:4
L:67 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:89 M:283 W: Missing Blank Line separator, <220> field identifier
L:92 M:283 W: Missing Blank Line separator, <220> field identifier
L:93 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6
L:99 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:108 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:136 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:149 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:150 M:283 W: Missing Blank Line separator, <220> field identifier
L:159 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:181 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:192 M:283 W: Missing Blank Line separator, <220> field identifier
L:201 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:202 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:13
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:215 M:283 W: Missing Blank Line separator, <220> field identifier
L:223 M:283 W: Missing Blank Line separator, <400> field identifier
L:245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:259 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:16, <213>
ORGANISM:Artificial
L:259 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:16, <213>
ORGANISM:Artificial
L:259 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:16,Line#:259
L:290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:291 M:252 E: No. of Seq. differs, <211> LENGTH:Input:18 Found:16 SEQ:17
L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:319 M:283 W: Missing Blank Line separator, <220> field identifier
L:330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:9 M:203 E: No. of Seq. differs, <160> Number Of Sequences:Input (14) Counted (20)
```